

CLAIMS

- [1] A metal halide lamp comprising:
an outer tube;
an inner tube that is provided in the outer tube, has a sealing portion
5 in at least one end portion, and is made of quartz glass; and
an arc tube provided in the inner tube,
wherein assuming that the outer tube has a maximum outer
diameter A (mm), the inner tube has a maximum outer diameter B (mm), and
the metal halide lamp consumes P (W) of power, the following relationships
10 are satisfied:
- $$0.06P + 15.8 \leq A \leq 25,$$
- $$0.05P + 9.0 \leq B, \text{ and}$$
- $$1.14 \leq A/B,$$
- where P satisfies $20 \leq P \leq 130$ W.
- 15 [2] The metal halide lamp according to claim 1, wherein assuming that
the arc tube has a maximum outer diameter C (mm), the following
relationship is satisfied: $0.05P + 2.2 \leq C \leq 0.07P + 5.8$.
- [3] The metal halide lamp according to claim 1, wherein the inner tube is
filled with nitrogen gas with a nitrogen gas pressure of 20 kPa or more when
20 a temperature in the inner tube is 25°C.
- [4] A lighting apparatus comprising:
a bottom-surface-open-type lighting unit; and
the metal halide lamp according to claim 1 that is mounted in the
lighting unit.